WHAT IS CLAIMED IS:

1	1. A device for selectively filtering an incident beam of light, the	device	
2	comprising:		
3	a first interference-filter array arranged to separate the incident beam i	nto a	
4	plurality of spectrally complementary beams;		
5	an array of configurable optical shutters disposed along paths of the se	parated	
6	beams to selectively block transmission of respective separated beams; and		
7	a second interference-filter array arranged to combine the separated be	ams	
8	whose transmission has not been blocked in accordance with states of the configurable	e	
9	optical shutters to produce a filtered output beam of light.		
1	2. The device recited in claim 1 wherein the first interference-filte	er array	
2	comprises:		
3	a first band-edge interference filter disposed to encounter the incident	beam;	
4	and		
5	a mirror disposed to encounter one of the plurality of spectrally		
6	complementary beams.		
1	3. The device recited in claim 2 wherein the first interference-filter	er array	
2	further comprises a plurality of second band-edge interference filters disposed along	ın	
3	optical path between the first band-edge interference filter and the mirror.		
1	4. The device recited in claim 3 wherein the interference filters as	nd the	
2	mirror are inclined at substantially 45° relative to the optical path between the first band-edg		
3	interference filter and the mirror.		
1	5. The device recited in claim 3 wherein:		
2	the first band-edge interference filter comprises a high-pass band-edge	,	
3	interference filter; and		
4	the second band-edge interference filters comprise low-pass band-edge		
5	interference filters.		
1	6. The device recited in claim 3 wherein:		
2	the first band-edge interference filter comprises a low-pass band-edge		
3	interference filter; and		

4	the second band-edge interference filters comprise high-pass band-edge		
5	interference filters.		
1	7. The device recited in claim 1 wherein the first interference-filter array		
2	comprises:		
3	a first mirror disposed to reflect the incident beam;		
4	a band-edge interference filter disposed to encounter the incident beam		
5	reflected from the first mirror; and		
6	a second mirror disposed to encounter one of the plurality of spectrally		
7	complementary beams.		
1	8. The device recited in claim 1 wherein the second interference-filter		
2	array comprises:		
3	a first band-edge interference filter from which the output beam emanates; and		
4	a mirror.		
1	9. The device recited in claim 8 wherein the second interference-filter		
2	array further comprises a plurality of second band-edge interference filters disposed along an		
3	optical path between the first band-edge interference filter and the mirror.		
1	10. The device recited in claim 9 wherein the interference filters and the		
2	mirror are inclined at substantially 45° relative to the optical path between the first band-edge		
3	interference filter and the mirror.		
1	11. The device recited in claim 9 wherein:		
2	the first band-edge interference filter comprises a high-pass band-edge		
3	interference filter; and		
4	the second band-edge interference filters comprise low-pass band-edge		
5	interference filters.		
1	12. The device recited in claim 9 wherein:		
2	the first band-edge interference filter comprises a low-pass band-edge		
3	interference filter; and		
4	the second band-edge interference filters comprise high-pass band-edge		
5	interference filters.		

1	13. The device recited in claim 1 wherein the second interference-filter		
2	array comprises:		
3	a first mirror from which the output beam emanates;		
4	a second mirror disposed to encounter one of the plurality of spectrally		
5	complementary beams; and		
6	a band-edge interference filter disposed between the first and second mirrors		
7	and disposed to transmit the output beam to the first mirror.		
1	14. The device recited in claim 1 wherein the optical shutters comprise		
2	mechanical shutters.		
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1	15. The device recited in claim 1 wherein the optical shutters comprise		
2	liquid-crystal shutters.		
1	16. The device recited in claim 1 wherein the first interference-filter array		
2	comprises an interference filter selected from the group consisting of a dichroic beam splitter,		
3	a Raman edge filter, and a Rugate notch filter.		
3	a Raman edge filter, and a Rugate noten filter.		
1	17. The device recited in claim 1 wherein the second interference-filter		
2	array comprises an interference filter selected from the group consisting of a dichroic beam		
3	splitter, a Raman edge filter, and a Rugate notch filter.		
1	18. The device recited in claim 1 further comprising:		
2	an input polarizer disposed to be encountered by the incident beam prior to		
3	encountering the first interference-filter array; and		
4	an output polarizer disposed to be encountered by the output beam,		
5	wherein the input and output polarizers have a relative orientation of 90°.		
5	wherein the input and output polarizers have a relative orientation of 50.		
1	19. The device recited in claim 1 wherein the first interference-filter array		
2	is further arranged to separate the incident beam into a plurality of beams having		
3	complementary polarizations, the plurality of spectrally complementary beams having a first		
4	polarization, the device further comprising:		
5	a third interference-filter array arranged to separate a beam having a second		
6	polarization into a second plurality of spectrally complementary beams;		

7	a second array of configurable optical shutters disposed along paths of the		
8	second plurality of spectrally complementary beams to selectively block transmission of		
9	respective ones of the second plurality of spectrally complementary beams; and		
10	a fourth interference-filter array arranged to combine the second plurality of		
11	spectrally complementary beams whose transmission has not been blocked in accordance		
12	with states of the second array of configurable optical shutters,		
13	wherein the second interference-filter array is further arranged to combine the		
14	combination of the second plurality of spectrally complementary beams with the filtered		
15	output beam of light.		
1	20. The device recited in claim 1 further comprising:		
2	a plurality of input polarizers disposed to encounter each of the separated		
3	beams prior to encountering the array of configurable optical shutters;		
4	a plurality of corresponding output polarizers disposed to encounter each of		
5	the separated beams that are transmitted through respective optical shutters,		
6	wherein each input polarizer and corresponding output polarizer have a		
7	relative orientation of 90°.		
1	21. A device for selectively filtering an incident beam of light, the device		
2	comprising:		
3	a first beamsplitter disposed to separate the incident beam into spectrally		
4	complementary first and second beams;		
5	an optical train providing optical paths for the first and second beams from the		
6	first beamsplitter;		
7	an array of configurable optical shutters disposed along the optical paths to		
8	selectively prevent transmission of light along each of the optical paths; and		
9	a first optical combiner disposed relative to the optical paths to combine light		
10	transmitted along the optical paths according to states of the optical shutters to produce a		
11	filtered output beam of light.		
1	22. The device recited in claim 21 wherein the optical train comprises a		
2	second beamsplitter disposed to separate the second beam into a plurality of spectrally		
3	complementary second beams.		

1	23.	The device recited in claim 22 wherein the optical train further		
2	comprises a plurality of mirrors disposed to define the optical path for one of the plurality of			
3	second beams.			
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1	24.	The device recited in claim 22 wherein the optical train further		
2		ptical combiner disposed to combine light transmitted along the optical		
3	paths for the plurality	of second beams according to states of the optical shutters.		
1	25.	The device recited in claim 24 further comprising:		
2	a plura	lity of input polarizers disposed to encounter each of the first and		
3	second beams prior to	encountering the array of configurable optical shutters; and		
4	a plura	ality of corresponding output polarizers disposed to encounter each of		
5	the first and second be	eams after encountering the array of configurable optical shutters,		
6	wherei	n each input polarizer and corresponding output polarizer have a		
7	relative orientation of			
1	26.	The device recited in claim 24 wherein each of the beamsplitters and		
2	optical combiners is o	priented at substantially 45° relative to one of the optical paths.		
1	27.	The device recited in claim 21 wherein:		
2	the firs	st beamsplitter and first optical combiner comprise high-pass band-edge		
3	interference filters; and			
4	the second beamsplitter and second optical combiner comprise low-pass band-			
5	edge interference filters.			
1	28.	The device recited in claim 21 wherein:		
2	the firs	st beamsplitter and first optical combiner comprise low-pass band-edge		
3	interference filters; and			
4	the second beamsplitter and second optical combiner comprise high-pass			
5	band-edge interference filters.			
1	29.	The device recited in claim 27 wherein the interference filters comprise		
2	dichroic beamsplitters	·		
1	30.	The device recited in claim 27 wherein the interference filters comprise		
		The device recited in claim 27 wherein the interference inters comprise		
2	Raman edge filters.			

1		31.	The device recited in claim 27 wherein the interference filters comprise
2	Rugate notch	filters.	
1		32.	The device recited in claim 21 wherein the optical shutters comprise
2	mechanical sh	nutters.	
1	11 .1	33.	The device recited in claim 21 wherein the optical shutters comprise
2	liquid-crystal	snutters	3.
1		34.	The device recited in claim 21 further comprising:
2		an inp	ut polarizer disposed to be encountered by the incident beam prior to
3	encountering	the first	beamsplitter; and
4		an out	put polarizer disposed to be encountered by the output beam,
5		where	in the input and output polarizers are have a relative orientation of 90°.
1		35.	A method for selectively filtering an incident beam of light, the method
2	comprising:		
3		separa	ting the incident beam into a plurality of spectrally complementary
4	beams;		
5		selecti	vely blocking transmission of some of the separated beams; and
6		combi	ning the separated beams that are not blocked to produce a filtered
7	output beam o	of light.	
1		36.	The method recited in claim 35 wherein selectively blocking
2	transmission o	of some	of the separated beams comprises routing the separated beams along
3	distinct optical paths to respective optical shutters and selecting states of the optical shutters.		
1		37.	The method recited in claim 35 wherein separating the incident beam
2	comprises sep	arating	the incident beam into a first beam that includes wavelengths above a
3	first cutoff wavelength and a second beam that includes wavelengths below the first cutoff		
4	wavelength.		
1		38.	The method recited in claim 37 wherein one of the first and second
2	beams corresp	onds to	a remainder beam and separating the incident beam further comprises
3	successively s	eparatir	ng the remainder beam according to a further cutoff wavelength into a
4	third beam and a further remainder beam.		

1		39. The method recited in claim 35 wherein combining the separated	
2	beams that are not blocked comprises successively adding one separated beam at a time to		
3	combination be	eam to produce the filtered output beam.	
1		40. The method recited in claim 35 further comprising:	
2		polarizing the incident beam; and	
3		polarizing the filtered output beam.	
1		41. The method recited in claim 35 further comprising:	
2		polarizing each of the separated beams prior to selectively blocking	
3	transmission of some of the separated beams; and		
4		polarizing each of the separated beams that are not blocked after selectively	
5	blocking transr	nission of some of the separated beams.	
1		42. The method recited in claim 35 further comprising:	
2		separating the incident beam into a plurality of beams having complementary	
3	polarizations, t	he plurality of spectrally complementary beams having a first polarization;	
4		separating a beam having a second polarization into a second plurality of	
5	spectrally com	plementary beams;	
6		selectively blocking transmission of some of the second plurality of spectrally	
7	complementary	beams;	
8		combining the second plurality of spectrally complementary beams that are	
9	not blocked; ar	ıd	
10		combining the combination of the second plurality of spectrally	
11	complementary	beams with the filtered output beam.	
1		43. A device for selectively filtering an incident beam of light, the device	
2	comprising:		
3		means for separating the incident beam into a plurality spectrally	
4	complementary	beams;	
5		means for selectively blocking transmission of some of the separated beams;	
6	and		
7		means for combining the separated beams that are not blocked to produce a	
8	filtered output	_	

l	44. The device recited in claim 43 wherein the means for selectively
2	blocking transmission of some of the separated beams comprise means for routing the
3	separated beams along distinct optical paths to respective optical shutters and selecting states
4	of the optical shutters.
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1	45. The device recited in claim 43 wherein the means for separating the
2	incident beam comprise means for separating the incident beam into a first beam that includes
3	wavelengths above a first cutoff wavelength and a second beam that includes wavelengths
4	below the first cutoff wavelength.
1	46. The device recited in claim 45 wherein one of the first and second
2	beams corresponds to a remainder beam and the means for separating the incident beam
3	further comprise means for successively separating the remainder beam according to a further
4	cutoff wavelength into a third beam and a further remainder beam.
1	47. The device recited in claim 43 wherein the means for combining the
2	separated beams that are not blocked comprise means for successively adding one separated
3	beam at a time to a combination beam to produce the filtered output beam.
1	48. The device recited in claim 43 further comprising:
2	means for polarizing the incident beam; and
3	means for polarizing the filtered output beam.
1	49. The device recited in claim 43 further comprising:
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2	means for polarizing each of the separated beams prior to selectively blocking
3	transmission of some of the separated beams; and
4	means for polarizing each of the separated beams that are not blocked after
5	selectively blocking transmission of some of the separated beams.